

Claims

What is claimed is:

- 5 1. A package method of a phosphoric light emitting diode (LED) comprising steps of:

providing a substrate and a casting mold, a plurality of LED
units are located on the substrate and a plurality of casting
units corresponding to the LED units are formed inside the
10 casting mold;

placing the substrate into the casting mold to align the LED
units corresponding with the casting units and fixing the
casting mold;

stuffing a liquid phosphoric glue containing a phosphor into the
15 casting mold to fill the casting units; and

precipitating the phosphor of the liquid phosphoric glue on the
LED units and hardening the liquid phosphoric glue to
obtain a mold encapsulating substrate.

- 20 2. The package method of claim 1 wherein the liquid phosphoric glue is composed of the phosphor and a package glue.

3. The package method of claim 2 wherein the package glue is an
epoxy resin.

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4. The package method of claim 1 wherein the phosphor is phosphor powders.
5. The package method of claim 1 wherein, after fixing the casting mold and before stuffing the liquid phosphoric glue, further comprises a step of preheating the casting mold.
6. The package method of claim 1 wherein the step of precipitating the phosphor is saturating the liquid phosphoric glue and precipitating the phosphor.
7. The package method of claim 1 wherein the step of hardening the liquid phosphoric glue is heating the liquid phosphoric glue after precipitating the phosphor and curing the liquid glue portion of the liquid phosphoric glue.
8. The package method of claim 1 wherein, after obtaining the mold encapsulating substrate, further comprises a step of cutting the mold encapsulating substrate into a plurality of LED package devices in accordance with the LED units.
9. The package method of claim 1 wherein the casting mold is composed of two molds, and the casting unit is formed on an inside surface of one of the molds.

10. The package method of claim 1 wherein, after stuffing the liquid phosphoric glue, further comprises a step of removing bubbles.

5 11. The package method of claim 1 wherein, after obtaining the mold encapsulating substrate, an outer package glue can be further formed outside the hardened liquid phosphoric glue with a casting mold method.